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IKEUCHI·SATO & PARTNER PATENT ATTORNEYS

26th FLOOR, OAP TOWER

8-30, TENMABASHI 1-CHOME, KITA-KU, OSAKA-SHI, OSAKA 530-6026, JAPAN

TELEPHONE: 81(0)6-6135-6051 FACSIMILE: 81(0)6-6135-6052

E-mail: email@ikeuchi-sato.or.jp

JAPANESE PATENT ATTORNEYS:

Hiroyuki IKEUCHI	Takashi NOYAMA
Kimihiko SATO	Hitoshi WADA
Takashi HAYASHI	Reiko TOTANI
Keiji TORAOKA	Yumi NAKAYAMA
Koichiro TSUJIMARU	Setsuko WAKATSUKI
Keiko KAWAKAMI	

March 10, 2004

The International Bureau of WIPO
34, chemin des Colombettes
1211 GENEVA 20
Switzerland

"Amendment of the claims under Article 19 (1) (Rule 46)"

Re: International Application No. PCT/JP03/11463

Applicant: MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

Agent: IKEUCHI, SATO & PARTNER PATENT ATTORNEYS

International Filing Date: 08. 09. 2003

Our Ref.: H1873-02

Dear Sir:

The Applicant, who received the International Search Report relating to the above identified International Application transmitted on 20 January 2004, hereby files amendment under Article 19 (1) as in the attached sheets.

That is, claims 1, 3-5, 8-11, and 15-18 are amended, and claims 2, 6, 7, and 12-14 are deleted.

Sincerely yours,

IKEUCHI SATO & PARTNER PATENT ATTORNEYS
Representative Partner
Hiroyuki IKEUCHI

Attachment:

(1) Amendment under Article 19(1) 4 sheets

CLAIMS

1. (amended) A zoom lens comprising, in the following order from an object side:
 - a first lens unit that has a positive refractive power as a whole and that is fixed with respect to an image plane;
 - a second lens unit that has a negative refractive power as a whole and that causes a variable power action when moved along an optical axis;
 - an aperture stop that is fixed with respect to the image plane;
 - a third lens unit that has a positive refractive power as a whole and that is fixed with respect to the optical axis direction when zooming and when focusing;
 - a fourth lens unit that has a negative refractive power as a whole and that is fixed with respect to the image plane; and
 - a fifth lens unit that has a positive refractive power as a whole and that is movable along the optical axis such that the image plane, which is displaced by a movement of the second lens unit along the optical axis and by a movement of the object, is maintained at a constant position from a reference plane,
wherein the entire third lens unit is movable in a direction perpendicular to the optical axis in order to stabilize an image,
the fifth lens unit is moved to the object side as the object point approaches,
and
- the following condition is conditional expressions (1) and (2) are satisfied
$$0.035 < |\beta_w \cdot \beta_t / Z| < 0.075 \quad (1)$$

β_w : magnification ratio of the second lens unit at the wide-angle end
 β_t : magnification ratio of the second lens unit at the telephoto end

Z: zoom ratio

$$0 < (d_{45T} - d_{45N}) / (IM \cdot Z) < 0.04 \quad (2)$$

d_{45T}: interval between the fourth lens unit and the fifth lens unit in a telephoto position

d_{45N}: interval between the fourth lens unit and the fifth lens unit when the second lens unit is in an equal magnification position

IM: image size

Z: zoom ratio.
2. (canceled)
3. (amended) The zoom lens according to claim 1 or 2, wherein the fourth lens unit satisfies the following condition when the second lens unit is at an equal

magnification position or at the telephoto end

$$Mt < 1.1 \leq 0.089 \quad (3)$$

Mt: amount by which the fourth lens unit is moved when the second lens unit is moved by 0.1 mm in a telephoto position.

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4. (amended) The zoom lens according to ~~any one of claims~~ claim 1 to or 3, wherein the second lens unit satisfies the following condition

$$0.4 \leq |Bt / \sqrt{Z}| \leq 0.9 \leq 0.65 \quad (4).$$

10 5. (amended) The zoom lens according to any one of claims 1 and 2 to 4, wherein the first lens unit is made of four lenses including, arranged in the following order from an object side, a lens with negative refractive power, a lens with positive refractive power, a lens with positive refractive power, and a lens with positive refractive power.

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6. (canceled)

7. (canceled)

20 8. (amended) The zoom lens according to any one of claims 1 and 3 to 7 5, wherein the second lens unit comprises at least three concave lenses and one convex lens and at least one aspherical surface.

25 9. (amended) The zoom lens according to any one of claims 1, 3 to 5 and 8, wherein the third lens unit comprises at least one convex lens and one concave lens and at least one aspherical surface.

30 10. (amended) The zoom lens according to any one of claims 1, 3 to 5, 8 and 9, wherein the fourth lens unit comprises at least one convex lens and one concave lens and at least one aspherical surface.

11. (amended) The zoom lens according to any one of claims 1, 3 to 5, and 8 to 10, wherein the fifth lens unit comprises at least two convex lenses and at least one concave lens.

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12. (canceled)

13. (canceled)

14. (canceled)

5 15. (amended) The zoom lens according to any one of claims 1, 3 to 5, and 8 to 14
11, wherein the second to fifth lens units comprise at least one lens having the
same sag amount on both sides.

10 16. (amended) The zoom lens according to any one of claims 1, 3 to 5, 8 to 11, and
15, comprising at least one aspherical surface whose sag amount on both sides is
the same.

15 17. (amended) The zoom lens according to any one of claims 1, 3 to 5, 8 to 11, 15
and 16, wherein all of the aspherical surfaces are such that the sag amount on
both sides is the same.

18. (amended) A video camera comprising a zoom lens according to any one of
claims 1, 3 to 5, and 8 to 11, and 15 to 17 and an image pickup element for
photoelectrically converting light that has passed through the zoom lens.

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